

REMARKS

Claims 1-20 are currently pending in the subject application and are presently under consideration. Claims 1, 13, and 15 have been amended herein for clarity and to disclaim the cited art. Since the amendments place the application in condition for allowance, do not involve further searching, and/or remove issue in the event of an appeal, entry is respectfully requested.

It is noted that from the Examiner's comments, that previous amendments may not properly indicate subject matter that was deleted. Applicant's representatives have reviewed the previous amendments and believe the subject deletions were correctly noted via the use of strikethrough indicia. If there is some other understanding, please feel free to call at your earliest convenience or specify any further objections. Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I. Rejection of Claims 1, 2, 4, 6, 8-10, and 13 Under 35 U.S.C. §102(e)

Claims 1, 2, 4, 6, 8-10 and 13 stand rejected under 35 U.S.C. §102(e) over Strudwick (GB 2216744). Although the distinction is believed to be inherent, claims 1 and 13 have been amended herein to more clearly define the subject invention over confocal imaging systems. In particular, claims 1 and 13 recite *the plurality of pixels receive an image of an object that is uniformly illuminated by an input light source* which is in sharp contrast to the beam-scanning, point-illumination source of the confocal system disclosed in Strudwick. In fact, Strudwick makes the following distinction (See top page 4) between uniformly illuminated systems and confocal systems:

“In a conventional microscope the input light is arranged to flood the object *uniformly* and the objective lens focuses each point on the object onto the corresponding point on the first image before final magnification by the eyepiece.

In a confocal optical system the pair of lenses forming the light spot on the object and forming the image from the object are both focused onto the same spot on the object. The spot of the light formed by the illuminating lens is thus far narrower than the flood illumination in a conventional microscope. The resolution is determined by the product of two diffraction limited spots.”

This distinction between uniformly illuminated (or wide-field) systems and confocal systems noted by Strudwick is important in view of the prior art. For example, here is a link that describes how pixels should be mapped in a uniformly illuminated system:

<http://www.microscopyu.com/tutorials/java/digitalimaging/pixelcalculator/index.html>

This link is still considered state of the art and supplied by both Nikon and Olympus. It is a Florida University Primer which describes how to size (e.g., pixel map) prior art systems. Here is the relevant text from the primer:

"Adequate resolution of a specimen imaged with the optical elements of a microscope can only be achieved if at least two samples are made for each resolvable unit, although many investigators prefer three samples per resolvable unit to ensure sufficient sampling."

The microscope being referred to in the above highlighted text is a classic style that uniformly illuminates a specimen as opposed to beam-scanning and point illumination. As shown, prior art describes that at least two or perhaps three pixels should be mapped per resolvable unit which is in sharp contrast to the claimed invention that maps about one pixel per resolvable unit. Since Strudwick does not teach or suggest any type of unit pixel mapping for a ***uniformly*** illuminated system, it is respectfully requested that this rejection be withdrawn.

II. Rejection of Claim 3 Under 35 U.S.C. §103(a)

Claim 3 stands rejected under 35 U.S.C. §103(a) over Strudwick (GB 2216744). In view of the amendments and comments directed above with respect to independent claim 1 from which claim 3 depends, it is respectfully requested that this rejection be withdrawn. Notably, Strudwick discloses a confocal scanning system, whereas the claims are directed to a wide-field optical system that processes light in a uniform manner as opposed to a scanned beam of light in the confocal system.

III. Rejection of Claim 5 Under 35 U.S.C. §103(a)

Claim 5 stands rejected under 35 U.S.C. §103(a) over Strudwick (GB 2216744) as applied to claim 1, and in view of Drobot et al (2002/0110077). In view of the

amendments and comments directed above with respect to independent claim 1 from which claim 5 depends, it is respectfully requested that this rejection be withdrawn. As noted previously, Strudwick discloses a confocal scanning system, whereas the claims are directed to a wide-field optical system that processes light in a uniform manner as opposed to a scanned beam of light in the confocal system. Since neither Strudwick nor Drobot, alone or in combination, teach or suggest a pixel mapped system for a uniformly illuminated source as recited in claim 1 from which claim 5 depends, this rejection should be withdrawn.

IV. Rejection of Claims 7 and 14 Under 35 U.S.C. §103(a)

Claims 7 and 14 stand rejected under 35 U.S.C. §103(a) over Strudwick (GB 2216744) as applied to claim 1 and 13, and in view of Malmros et al (2003/0026762). In view of the amendments and comments directed above with respect to independent claim 1 from which claim 7 depends, it is respectfully requested that this rejection be withdrawn. Also, claim 13 has been amended herein to recite a uniformly lit field of view. As noted previously, Strudwick discloses a confocal scanning system, whereas the claims are directed to a wide-field optical system that processes light in a uniform manner as opposed to a scanned beam of light in the confocal system. Neither Strudwick nor Malmros alone or in combination teach or suggest a pixel mapped system for a uniformly illuminated source as recited in claim 1 and claim 13 from which claims 7 and 14 depends, respectively. Accordingly, this rejection should be withdrawn.

V. Rejection of Claims 11 and 12 Under 35 U.S.C. §103(a)

Claims 11 and 12 stand rejected under 35 U.S.C. §103(a) over Strudwick (GB 2216744) as applied to claim 1, and in view of Soenksen et al (6,711,283). In view of the amendments and comments directed above with respect to independent claim 1 from which claims 11 and 12 depends, it is respectfully requested that this rejection be withdrawn. As noted previously, Strudwick discloses a confocal scanning system, whereas the claims are directed to a wide-field optical system that processes light in a uniform manner as opposed to a scanned beam of light in the confocal system. Neither Strudwick nor Soenksen alone or in combination teach or suggest a pixel mapped system

for a uniformly illuminated source as recited in claim 1 from which claims 11 and 12 depends. Accordingly, this rejection should be withdrawn.

VI. Rejection of Claims 15-20 Under 35 U.S.C. §103(a)

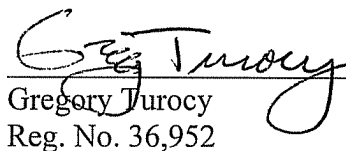
Claims 15-20 stand rejected under 35 U.S.C. §103(a) over Malmros et al (2003/0026762) in view of Strudwick (GB 2216744). Independent claim 15 from which claims 16-20 depend has been amended herein to recite a light source that uniformly illuminates a specimen. As noted previously, Strudwick discloses a confocal scanning system, whereas the claims are directed to a wide-field optical system that processes light in a uniform manner as opposed to a scanned beam of light in the confocal system. Neither Strudwick nor Malmros alone or in combination teach or suggest a system *where at least one pixel from the plurality of pixels is correlated to about a size of a diffraction-limited spot defined by a microscopic optical medium within a uniformly illuminated source* as recited in claim 15 from which claims 16-20 depend. As such, this rejection should be withdrawn.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063.

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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